This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

Claim 1 (currently amended): A gallium-nitride semiconductor substrate

having a mirrorlike, planar surface directly onto which a light-emitting-device-forming

film has been epitaxially grown, the gallium-nitride substrate therein contaminated on

its epitaxial-film side at the interface between the mirrorlike, planar surface and the

device-forming film grown thereon by one or more elements selected from Si, Cr, Mn,

Fe, Ni, Cu, Zn and Al at a density level of from 15×10^{10} to 10×10^{11} atoms/cm².

Claim 2 (currently amended): A gallium-nitride semiconductor substrate

having a mirrorlike, planar surface directly onto which a light-emitting-device-forming

film has been epitaxially grown, the gallium-nitride substrate therein contaminated on

its epitaxial-film side at the interface between the mirrorlike, planar surface and the

device-forming film grown thereon by one or more elements selected from Si, Cr, Mn,

Fe, Ni, Cu, Zn and Al at a density level of from 15×10^{10} to 5×10^{11} atoms/cm².

Claim 3 (withdrawn): A method of processing a gallium-nitride

semiconductor substrate, the method comprising:

providing a gallium-nitride semiconductor substrate having a complex front

side in which the Ga and N faces are exposed in alternation;

polishing the substrate front side with an abrasive embedded into a metallic

platen, thereby transforming the substrate episurface into a process-transformed

layer;

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reactive-ion etching the substrate front side using a halogen plasma to remove the process-transformed layer; and

wet etching the reactive-ion etched substrate, by means of an etchant that is one of HF + H_2O_2 , HCl + H_2O_2 , H_2SO_4 + H_2O_2 , HNO₃ + H_2O_2 , HF + O₃, HCl + O₃, H_2SO_4 + O₃, HNO₃, or HNO₃ + O₃, and that has an oxidation-reduction potential of more than 1.2 V, in a room-temperature aqueous solution of pH = 2 to 3, thereby to remove contaminant metal produced by said reactive-ion etching.

Claim 4 (canceled)

Claim 5 (withdrawn): A method of processing a gallium-nitride semiconductor substrate as set forth in claim 3, characterized in that a wash for taking off organic matter by means of an organic solvent, and a wash by means of an alkaline solution in order to take off nonmetal contaminants are carried out either before or after the wet etching.

Claim 6-10 (canceled)

Claim 11 (previously presented): A gallium-nitride semiconductor substrate as set forth in claim 1, wherein the substrate surface on which the device-forming epitaxial film has been grown is a complex of faces in which Ga is exposed, and faces in which N is exposed.

Claim 12 (previously presented): A gallium-nitride semiconductor substrate as set forth in claim 2, wherein the substrate surface on which the device-forming epitaxial film has been grown is a complex of faces in which Ga is exposed, and faces in which N is exposed.

Claims 13 and 14 (canceled)